

- 1           1. An isolated nucleic acid molecule comprising a nucleotide sequence encoding  
2 an RDE-1 polypeptide, wherein the nucleic acid molecule hybridizes under high  
3 stringency conditions to the nucleic acid sequence of Genbank Accession No. AF180730  
4 (SEQ ID NO:2) or its complement, or nucleic acid sequence set forth in SEQ ID NO:1 or  
5 its complement.
- 1           2. The isolated nucleic acid of claim 1, wherein the nucleic acid can complement  
2 an rde-1 mutation.
- 1           3. An isolated nucleic acid of claim 1, wherein the nucleotide sequence encodes  
2 the amino acid sequence of SEQ ID NO:3.
- 1           4. A substantially pure RDE-1 polypeptide encoded by the isolated nucleic acid  
2 of claim 1.
- 1           5. An antibody that specifically binds to an RDE-1 polypeptide.
- 1           6. A method of enhancing the expression of a transgene in a cell, the method  
2 comprising decreasing activity of the RNAi pathway.
- 1           7. The method of claim 6, wherein rde-2 expression or activity is decreased.
- 1           8. An isolated nucleic acid molecule comprising a nucleotide sequence encoding  
2 an RDE-4 polypeptide, wherein the nucleic acid molecule hybridizes under high  
3 stringency conditions to the nucleic acid sequence of SEQ ID NO:4 or its complement.
- 1           9. The isolated nucleic acid of claim 8, wherein the nucleic acid can complement  
2 an rde-4 mutation.
- 1           10. An isolated nucleic acid of claim 8, wherein the nucleotide sequence encodes  
2 the amino acid sequence of SEQ ID NO:5.
- 1           11. A substantially pure RDE-4 polypeptide encoded by the isolated nucleic acid  
2 of claim 8.
- 1           12. An antibody that specifically binds to an RDE-4 polypeptide.
- 1           13. A method of preparing an RNAi agent, the method comprising incubating a  
2 dsRNA in the presence of an RDE-1 protein and an RDE-4 protein.

1           14. A method of inhibiting the activity of a gene, the method comprising  
2     introducing an RNAi agent into a cell, wherein the dsRNA component of the RNAi agent  
3     is targeted to the gene.

1           15. The method of claim 14, wherein the cell contains exogenous RNAi  
2     sequences.

1           16. The method of claim 14, wherein the exogenous RNAi sequence is an RDE-1  
2     polypeptide or an RDE-4 polypeptide.